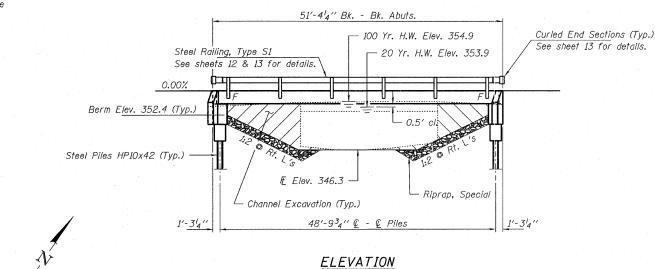
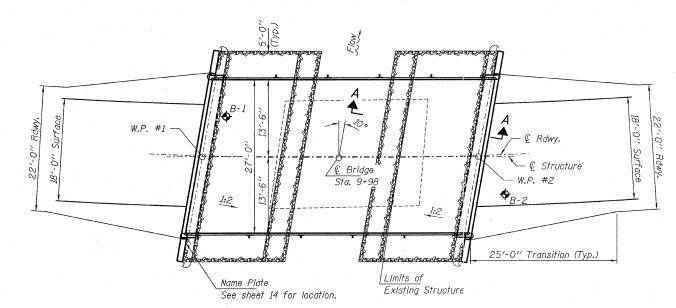
RENCHMARK.

EXISTING STRUCTURE: Single span cast-in-place concrete slab on steel wide flange beam bridge on steel pile bent abutments with stone backing. 24.0' fc.-fc. abuts.; 18.9' o.-o. deck. Structure closed to traffic.

No Salvage





PLAN

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi fy = 60,000 psi (Reinf.)

PRECAST PRESTRESSED UNITS

DESIGNED - S.M.S. CHECKED - S.W.M. ~ D.A.B. CHECKED - D.T.M.

LOADING HL-93

Design Specifications: 2007 AASHTO LRFD with all applicable interims.
50#/Sq. Ft. included in dead load for future wearing surface.

f'c = 6,000 psi f'ci = 5,000 psi fpu = 270,000 psi ($^{1}_{2}$ " ϕ low lax. strands) fpbt = 201,960 psi ($^{1}_{2}$ " ϕ low lax. strands) fy = 60,000 psi (Reinf.)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2 Design Spectral Acceleration at 1.0 sec. (S_{DI}) = 0.238g Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.653g Soil Site Class = C

WATERWAY INFORMATION

Existing Low Grade Elev. 352.62 © Sta. 9+00 Drainage Area = 10.94 Sq. Mi. Proposed Low Grade Elev. 353.50 © Sta. 11+75									
Flood	Freq. Q		Opening Sq. Ft. N		Natural	Head - Ft.		Headwater El.	
F 1000	Yr.	<i>C.F.S.</i>	Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
Design	15	1768	150 D	280	353.9	0.5	1.0	354.4	354.9
Base	100	2804	150 @	300 €	354.9	0.2	0.6	355.1	355.5
Overtopping									
Max. Calc.	500	3757	150 G	300 S	355.5	0.2	0.5	355.7	356.0

10 Year Velocity through Existing Bridge = 4.8 fps 10 Year Velocity through Proposed Bridge = 4.5 fps ① Approach flow area = 350 sq. ft. ② Approach flow area = 150 sq. ft. ② Approach flow area = 460 sq. ft. ③ Approach flow area = 460 sq. ft. ③ Approach flow area = 1290 sq. ft.

GENERAL NOTES

Layout of riprap may be varied in the field to suit ground conditions as directed by the Engineer. Reinforcement bars shall conform to the requirements of ASTM A

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.

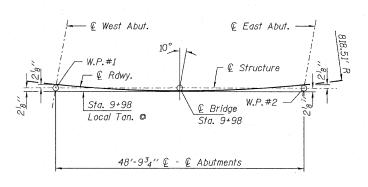
Excavation required to construct the Abutments shall be included in the cost of Concrete Structures. No additional compensation will be allowed for Structure Excavation.

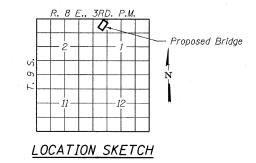
All proposed construction activities shall be in accordance with Nationwide Permit number 14 of the Department of the Army authorized under Section 404 of the Clean Water Act.

The IEPA has issued Section 401 Water Quality Certification for this captivity. See Special Providence for conditions for this activity. See Special Provisions for conditions. See sheet 16 for Borings.

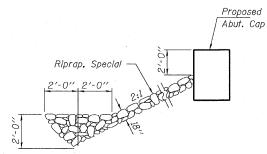
BUILT 200_ BY GALLATIN COUNTY SEC. 06-04109-00-BR EQUALITY ROAD DISTRICT STR. NO. 030-3126 LOADING HL-93

> NAME PLATE See Std. 515001





OFFSET SKETCH



SECTION A-A Note: See Special Provisions for Riprap, Special.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL				
Channel Excavation	Cu. Yd.			125				
Riprap, Special	Sq. Yd.			140				
Removal of Existing Structures	Each			1				
Concrete Structures	Cu. Yd.		26.6	26.6				
Concrete Encasement	Cu. Yd.		2.8	2.8				
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1,350		1,350				
Reinforcement Bars	Pound		3,240	3,240				
Steel Railing, Type S1	Foot	96		96				
Furnishing Steel Piles HP10x42	Foot		88	88				
Name Plates	Each		1	1				
Setting Piles in Rock	Each		8	8				

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO Standard Specifications for Highway Bridges".

Steven W. Megyinson 11/5/2008 ILLINOIS STRUCTURAL NO. 081-6064



Expires 11-30-10

GENERAL PLAN AND ELEVATION STRUCTURE NO. 030-3126

HAMPTON, LENZINI & RENWICK, INC.

HER

3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400

		•		_	_
	SI.	ΗF	⊏	т	c

SHEET NO.	T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
3.122, 1.02	98	06-04 <u>1</u> 09-00-BR	GALLATIN	17	9	
SHEETS	EQUAL	ITY ROAD DISTRICT	CONTRACT NO. 99353			
	<u> </u>		l			

ILLINOIS FED. AID PROJECT